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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,525

06/16/2006

Andrew Holland

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EXAMINER

TRAN, THIEN F

ART UNIT

PAPER NUMBER

2895

MAIL DATE

DELIVERY MODE

06/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/583,525	Applicant(s) HOLLAND, ANDREW	
	Examiner Thien F. Tran	Art Unit 2895	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-20,23,24,41 and 42 is/are pending in the application.
- 4a) Of the above claim(s) 6,9-19,23,41 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,20 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/16/06, 07/24/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of species 1:embodiment of Fig. 2 including claims 1, 3-5, 7, 8, 20 and 24 in the reply filed on 04/23/2009 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-5, 7, 8, 20 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the heating radiating surface" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "said printed circuit board facing said surfaces" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. It is noted that claim 1 recites a facing surface, not a plurality of facing surfaces.

Regarding claim 8, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question

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or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 8 recites the broad recitation “preferably at least one weakened line, such as...”, and the claim also recites “more preferably the folding means includes two weakened lines ..” which is the narrower statement of the range/limitation.

Regarding claim 7, the phrase "preferably" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 20 recites the limitation “the formation of electrical connectors” in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the base support" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 4, 5, 7 and 24 are necessarily rejected since these claims directly or indirectly depend upon the rejected base claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 8, 20 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurashima et al (JP 06-350012).

Kurashima et al discloses a mounting (leadframe 1 in Fig. 8) for a semiconductor assembly comprising: a first portion (4) for mounting a semiconductor assembly (12); a second portion (2); and a connecting portion (Fig. 3c) joining the first and second portions and arranged to allow folding of the second portion over the first portion to form a cover, wherein the mounting comprises a sealing material (resin injected in through hole 6) at least partially encapsulating the mounting and the semiconductor assembly such that at least part of a printed circuit board facing surface of the first portion is left exposed.

Regarding claim 3, the first portion (4) of the mounting comprises a formation of electrical connectors (5), which have said printed circuit board facing said surface, which is not covered by said sealing material.

Regarding claim 4, the second portion (2) is arranged to be in a spaced parallel relationship with the first portion (4).

Regarding claim 5, the second portion (2) further comprises at least one additional edge portion (the vertical connecting portion shown in Fig. 3c) arranged to

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extend when the mounting is folded beyond at least one edge of the first portion (4) of the mounting.

Regarding claim 8, the connecting portion is provided with folding means to enable the folding of the second portion (2) over the first portion (4), and the folding means is at least one weakened line (see Fig. 3c) in the mounting having a thickness that is less than that of the rest of the mounting. Kurashima further discloses that the folding means includes two weakened lines, one between the first portion and the connecting portion and one between the second portion and the connecting portion.

Regarding claim 20, the mounting comprises a formation of electrical connectors (5) is in a spaced relationship with a base support (4) and are linked electrically with the semiconductor assembly (12) by wires.

Regarding claim 24, the mounting is part of an array of a plurality of mountings (2 mountings of 2 and 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kurashima et al (JP 06-350012).

Regarding claim 7, the mounting is formed from a single sheet (leadframe 1). Kurashima et al does not disclose that the mounting is copper. However, it is old and

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well known in the art to form mounting (leadframe) of copper for high conductivity. Therefore, forming mounting (leadframe 1) of copper would have been obvious modification. It is inherent that copper is an electrically and thermally conducting material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F. Tran whose telephone number is (571) 272-1665. The examiner can normally be reached on 7:30AM - 4:00PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew N. Richards can be reached on (571) 272-1736. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Thien F Tran
Primary Examiner
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/Thien F Tran/
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